

DISTRIBUTION OF SILPHIDAE ON
SOUTHERN VANCOUVER ISLAND

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ABSTRACT

This article presents the Silphidae known to occur on Southern Vancouver Island, British Columbia. Represented are the tribes Lyrosomini (*Pteroloma tenuicorne* LeC.), Agyrtini (*Pelatines latus* Mann., *Necrophilus hydrophiloides* Mann., and *Agyrtes longulus* LeC.), Silphini (*Silpha lapponica* Hbst.), and Nicrophorini (*Nicrophorus investigator* Mann., *N. nigritus* Mann., *N. guttulus* Mots., *N. marginatus* F., and *N. vespilloides defodiens* Mann. and its aberrations *conversator* Walker, *gaugei* Hatch and *walkeri* Hatch).

Southern Vancouver Island comprises that area of the island south of 49.5° latitude. This area consists of 2 major biotic zones, the coastal forest and the gulf island lowlands (Cannings and Stuart 1977). These zones have a climate of moderate temperatures and abundant winter rain. This moderate climate has the characteristic Vancouverian fauna (Hatch 1953) which is noted for its diversity of geobious and hydrobious beetles.

One of the first references to Southern Vancouver Island Silphidae was Walker (1866), who listed *Nicrophorus investigator* Zett. (as *Necrophorus melsheimeri* Kby.) and *N. vespilloides defodiens* Mann. ab. *conversator* Walker (as *Necrophorus conversator* Walker). LeConte (1869) described the collection of Henry and Joseph Matthews listing *N. investigator* Zett. (as *Necrophorus maritimus* Mann. var. *confossor* LeC.), *N. nigritus* Mann. (as *Necrophorus nigrita* Mann.), *Silpha lapponica* Hbst., and *Necrophilus hydrophiloides* Mann. Holland (1888) described the capture of *Silpha lapponica* Hbst. from Nanaimo as did Keen (1898) from Victoria.

Specimens examined came from the author's collection (A) and the collections of the University of Victoria (UV), British Columbia Provincial Museum (PM), Pacific Forest Research Center (PF), and the Saanichton Research Station (S). The identifications and classification used in this list follow Hatch's (1957) Beetles of the Pacific Northwest vol. II.

Family *Silphidae*Tribe *Lyrosomini*

Pteroloma tenuicorne LeC.: Errington, B.C., 5-VII-29, G. H. Larnder, (PM) (1)

Tribe *Agyrtini*

Pelatines latus Mann.: Cowichan Lake, B.C., 26-VIII-44, L. Pebble, (PF) (1).

Necrophilus hydrophiloides Mann.: Sidney, B. C., 3-VI-77, P. Everson, forest pit trap, (A) (5); 2-VI-27, W. H. A. Preece, (PM) (1); Duncan, B. C., 19-V-06, (PM) (1); Colwood, B. C., 1932-6, H. Peake, (PM) (1).

Agyrtes (Agyrtecanus) longulus LeC.: Errington, B. C., 3-III-50, G. H. Larnder, (PM) (3).

Tribe *Silphini*

Silpha (Thanatophilus) lapponica Hbst.: Errington, B. C., 19-VI-49, G. H. Larnder, (PM) (2); Victoria, B. C., 22-VI-26, G. A. Hardy, (PM) (7); 13-IX-25, Cook, dead fish, (PM) (3); Colwood, B. C., 1932-6, H. Peake, (PM) (2).

Tribe *Nicrophorini*

Nicrophorus vespilloides defodiens Mann.: Victoria, B. C., 6-VI-69, R. Storey, pit trap, (UV) (2); 4-VII-77, P. Everson, forest pit trap, (A) (2); Duncan, B. C., 28-V-05, A. Hanham, (PM) (1).

Nicrophorus vespilloides defodiens Mann. ab. *conversator* Walker: Victoria, B. C., 29-VI-77, P. Everson, forest pit trap, (A) (2); Genoa Bay, B. C., 10-VI-28, Mathers, (PF) (2).

Nicrophorus vespilloides defodiens Mann. ab. *gaugei* Hatch: Victoria, B. C., 6-VI-69, pit trap, (UV) (2); 6-VI-61, L. Theaker, (A) (1); Caycuse, B. C., 6-VI-68, R. Storey, (UV) (2); Duncan, B. C., 3-V-06, A. Hanham, (PM) (1); Saanich, B. C., 10-XI-45, G. A. Hardy, (PM) (1); Errington, B. C., 3-VI-26, G. H. Larnder, (PM) (2).

Nicrophorus vespilloides defodiens Mann. ab. *walkeri* Hatch: Victoria, B. C., 6-VI-69, in pit trap. (UV) (1); Duncan, B. C., 26-VI-05, A. Hanham, (PM) (2); Errington, B. C., 1-VI-29, G. H. Larnder, (PM) (1); Langford, B. C., 5-X-56, D. Evans, (PF) (1).

Nicrophorus investigator Zett.: Victoria, B. C., 27-VII-77, P. Everson, forest pit trap, (A) (9); ?-III-42, Shawing, (PM) (1); Colwood, B. C., 1932-36, H. Peakes, (PM) (3); Duncan, B. C., 22-30-IV-20, A. Hanham, (PM) (6); Errington, B. C., 8-VIII-50, G. H. Larnder, (PM) (1).

Nicrophorus nigritus Mann.: LeConte (1869).

Nicrophorus guttulus Mots.: Victoria, B. C., 1-VI-25, Downes, (S) (3).

Nicrophorus marginatus F.: Duncan, B. C., ?, A. Hanham, (PM) (1).

Aberrations of the elytral fasciae were included for *N. vespilloides defodiens* Mann. because they occur consistently in the collections examined. These elytral aberrations represent genetic rather than taxonomic differences (Hatch 1953, 1957; Leech 1935). Leech (1935) found that the offspring from *N. vespilloides defodiens* Mann. were the following: *N. vespilloides defodiens* Mann., *N. vespilloides defodiens* ab. *conversator* Walker and *N. vespilloides defodiens* ab. *gaugei* Hatch with a ratio of approximately 1:2:1. *N. vespilloides defodiens* Mann. is commonly found on Southern Vancouver Island, and Walker (1866) gave Vancouver Island as type-locality for *N. conversator*. However, in the material examined *N. vespilloides* Hbst. s. str. was absent although it is common on the British Columbia coast (Hatch 1957).

The collecting data indicate that Silphids are most common during the months of May, June, July, and August. This agrees with Leech (1935) and Holland (1888). Because much of Vancouver Island is unrepresented in this list, little can be said about the abundance or absence of any particular species.

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